



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,278

01/14/2007

Sei Hirade

200380-9057

9400

1131 7590 02/03/2009
MICHAEL BEST & FRIEDRICH LLP
Two Prudential Plaza
180 North Stetson Avenue, Suite 2000
CHICAGO, IL 60601

EXAMINER

WOO, KUO-KONG

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

02/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,278	Applicant(s) HIRADE, SEI	
	Examiner KUO WOO	Art Unit 4133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/7/07, 1/16/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the applicants' communication filed on 01/14/2007. In virtue of this communication, claims 1-15 are currently presented in the instant application.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 5/7/2007 and 1/16/2007 in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner

Priority

3. Receipt is acknowledged of paper submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. This application is a 371 of PCT/JP04/14409 on 09/24/2004 and claims to foreign priority number 2003-333297, filed on 09/25/2003.

Drawings

4. The drawings submitted on 01/14/2007. These drawings are reviewed and objected by the examiner as the following.

5. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

Art Unit: 4133

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. These drawings (Fig 2, 4,6, 8,9,10 and13) are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character such as in Fig 1 “MOBILE TERMINAL 1, MOBILE TERMINAL 2 and MOBILE TERMINAL n” have been used to designate same as block number “1. In Fig.4, “CALL REGULATION VALUE M1, CALL REGULATION VALUE M2”, have been used to designate same as block number “31”. In Fig 6, “MOBILE TERMINAL 1, MOBILE TERMINAL 2 and MOBILE TERMINAL n” have been used to designate same as block number “51”. In Fig 8, “MOBILE TERMINAL 1, MOBILE TERMINAL 2 and MOBILE TERMINAL n” have been used to designate same as block number “71”. In Fig 9, “MOBILE TERMINAL 1, MOBILE TERMINAL 2 and MOBILE TERMINAL n” have been used to designate same as block number “81”. In Fig 10, “CALL REGULATION VALUE M1, CALL REGULATION VALUE M2, and CALL REGULATION VALUE M3” have been used to designate same as block number “91”. In Fig 13, “MOBILE TERMINAL 1, MOBILE TERMINAL 2 and MOBILE TERMINAL n” have been used to designate same as block number “121”. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by

Art Unit: 4133

the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. Correction shall be made to designate different block number for different reference block.

7. The drawing Fig.9 is objected to as failing to comply with 37 CFR 1.84(p) (4) because reference character "MEMROY UINT AND TRAFFIC MEASURE UNIT" have been used to designate both block number 833. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance. Correction shall be made for traffic measure unit as block number 831.

Claim Rejections - 35 USC § 101

8. U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Regarding claim 13 is rejected under 35 USC § 101 because the claimed invention a program for allowing a computer or a microprocessor to execute a method

Art Unit: 4133

for receiving a call and computer program are directed to non-statutory subject matter as follows. Claim 13 as a whole define execute a computer or microprocessor program for performing the method recited in claim 7. wherein a transitory, propagating signal... is not a (process, machine, manufacture, or composition of mater). Those four categories define the explicit scope and reach of subject matter patentable under 35 U.S.C. § 101; thus, such signal and computer program cannot be patentable subject matter.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirade (US Patent Number 6,411,814 B1).

Regarding claim 14, “A mobile communication system comprising: a mobile terminal comprising a first memory storing a plurality of call regulation values, a second memory storing a telephone number associated with one of said plurality of call regulation values, and a random number generator; and a base station comprising means for transmitting a call regulation signal, wherein when receiving said call regulation signal from said base station, said mobile terminal compares a telephone number on the point of calling with a telephone number stored in said second memory, and if they agree, judges whether a call is possible or not depending on said call

Art Unit: 4133

regulation value associated with said telephone number and output of said random number generator” The Hirade discloses (Abstract, each mobile terminal comprises a memory which memorizes whether or not a last call end state is a squelch end and which memorizes, in case where the last call end state memorized in the memory is the squelch end, a random minimum value greater than that in case where the last call end state memorized in the memory is not the squelch end, a probability generating section, and a call setup request section responsive to a call setup request for detecting a call regulation value from a call regulation signal, supplying the random minimum value memorized in the memory to the probability generating section to make the probability generating section generate as a call setup request probability one of a plurality of random numbers within a range between the random minimum value and a random maximum value, and transmitting a call setup signal to a base station in case where the call setup request probability is greater than the call regulation value),wherein call is set up not depending only call regulation value and random number generator.

Regarding claim 15 is rejected, has limitations similar to those treated in the above rejection(s), and are met by the references as discussed above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirade (US Patent number 6,411,814 B1) in view of Dupont (US Patent Number 5,729,542) and in further view of Chuah et al. (US Patent Number 6,594,240B1. Hence this applicant and reference are naming Hirade, therefore reference name as "the Hirade" to distinguish with this applicant Hirade.

Regarding claim 1, "A system for receiving a call having priority in a call regulation, comprising a mobile terminal and a base station" the Hirade discloses (Col. 1, lines 8-9, system including a base station and a mobile station) and (Each mobile terminal comprising call request unit, memory unit and call probability generating unit as a random number generator); "base station comprising a traffic measurement unit and a call regulation transmission unit" (col. 3, lines 45-50, base station comprising a traffic measurement unit and call set up transmitted from the first through the n-th mobile terminal); "traffic measurement unit measures communication traffic by receiving a call request signal transmitted from said mobile terminal and counting the number of received signals in a unit of given time period" (Col. 3, lines 48-52, time interval as a traffic measurement which is continuously monitored. If the traffic measurement exceeds a preselected 50 value, the base station 2 transmits to the first through the n-th mobile terminals 1-1 through 1-n a call regulation signal representative of a call regulation value M (%)); "call request probability generation unit generates a call request probability that is a random number N of a minimum value 1% to a maximum value

Art Unit: 4133

100%”; However, the Hirada does not explicitly disclose “memory unit stores a transmission destination telephone number having priority”.

In an analogous art, Dupont discloses (Col. 2, lines 40-44, A presently preferred embodiment of the invention is a system for controlling access through the use of varying access probabilities for subscribers of varying priority); “call request unit obtains a transmission destination telephone number which has been requested by a subscriber, and receives a call regulation signal from said base station, and obtains a call regulation value M1 for a transmission destination telephone number having priority and a call regulation value M2 for other than a transmission destination telephone number having priority ($M1 < M2$) and acquires said call request probability N by allowing said call request probability generation unit to operate, and reads said transmission destination telephone number having priority from said memory unit of said mobile terminal, thereby confirming whether or not said transmission destination telephone number resides in said transmission destination telephone number having priority, if said transmission destination telephone number exists in said transmission destination telephone number having priority” Dupont discloses (Col. 4-5, lines 66-67 and 1-4, if more than two probability levels) to control the access attempts by different priority classes of subscribers. Two particularly useful approaches for determining the access values are the following proportional and temporal priority distribution approaches); “said call request unit compares said call request probability N with said call regulation value M1, and transmits a call request signal when said call request probability N is larger than said call regulation value M1, and discards a call request

Art Unit: 4133

from a subscriber after outputting a call rejection message onto a display of said mobile terminal when it is smaller, and conversely, if said transmission destination telephone number does not exist in said transmission destination telephone number having priority, said call request unit compares said call request probability N and said call regulation value M2, and transmits a call request signal when said call request probability N is larger than said call regulation value M2, and discards a call request from a subscriber after outputting a call rejection message onto a display of said mobile terminal when it is smaller. Dupont discloses (Col. 6, lines 12-24, Each MS then determines whether to transmit during a current access period based on the received access control vector. Where the vector includes access window values such as in FIG. 4, the values are preferably applied by first selecting the value applicable to priority class of the subscriber or, if appropriate to the system, a queued packet or message. A random number or the like is then preferably generated and applied to the selected value to generate a delay value. The subscriber then counts this delay value number of allowed burst periods (i.e., data time slots available for access) before transmitting its access/reservation request; counting is suspended during periods when the MS is not allowed access) and (col.6, lines 38-44 Alternative uses of a differentiating user-generated value such as a random number will be apparent to a skilled artisan; e.g., instead of determining a window period, between 0 and 1 could be generated each allowed burst period, with an access attempt being permitted if the number is greater than the applicable probability value and otherwise inhibited), wherein various regulation

Art Unit: 4133

values, calling lists along with random generated number are utilized to determine each calling process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Hirade teaching in combination of Dupont provides this contention-based prioritization, an expedited access is achieved by higher priority units/traffic, thus increasing their throughput. (See Abstract). Rationales for arriving at a conclusion of obviousness are combining prior art elements according to known method to yield predictable result.

Regarding claim 2," said base station further comprising a time management unit and a timer, wherein at an approach of the time for which a large number of calls are expected, said time management unit transmits in advance through said call regulation transmission unit a call regulation signal irrespective of a measured value of communication traffic, and allows said timer to operate after transmitting said call regulation signal, and after an elapse of a given time, releases a call regulation by transmitting a call regulation signal carrying thereon a specific pattern indicating regulation-free" the Hirade discloses (Col 5, lines 33-42, When the last call end state 121 representing the squelch end by the squelch interruption is memorized in the memory 12 together with the random minimum value $L(\%)^{122}$ having a value (for example,50) corresponding to the squelch end, the timer 14 is started. In absence of another call set up request within a predetermined time period (for example, 5 ,minutes),the last call end state 121 in the memory 12 is put into

Art Unit: 4133

a reset state and the value of the random minimum value L (%) is kept equal to zero), wherein timer is part of overall control in the call setup process.

Regarding claim 3, the Hirade discloses call regulation in claim 1, however the Hirade does not explicitly disclose "further comprising a host device, wherein said host device is a device that recognizes and manages, if an earthquake or a large disaster occurs, as to in which base station area such a disaster has occurred and whether it has terminated, and that notifies a corresponding base station of disaster information about occurrence and termination of a disaster by a disaster information signal, said base station further comprising a disaster correspondence unit, wherein said disaster correspondence unit receives a disaster information signal from said host device, and if a disaster occurs, transmits a call regulation signal through said call regulation transmission unit irrespective of a measured value of communication traffic, and if a disaster has terminated, releases a call regulation by transmitting a call regulation signal carrying a specific pattern indicating regulation-free".

In an analogous art, Chuah discloses (Col. 15, lines 24-29, one possible implementations of access priority according to the invention is to reserve some logical access channels such that only emergency users can access. In another scenario, a service provider can differentiate, according to the present invention, between different types of customers based on the service charges that they pay), wherein a nature that warrants immediate transmission, a different access priority is assigned.

. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Hirade and Dupont's teaching in combination of

Art Unit: 4133

Chuah provides access priority control in a communications system and, more particularly, to methods and apparatus for providing access priority control in a media access control protocol of a Universal Mobile Telecommunications System. (See Col. 1 lines 20-25, Field of the invention).

Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR include: Applying a known technique to a known device ready for improvement to yield predictable results.

Regarding claim 4, "A system for receiving a call having priority in a call regulation, comprising a host device, a plurality of exchanging centers, a plurality of base stations under control of said exchanging centers, and a plurality of mobile terminals under control of said exchanging centers, the whole being connected to configure a network, wherein said host device is a device that manages telephone numbers including telephone numbers of a fixed network, allowing a memory unit of said host device to store in advance a specific transmission destination telephone number for which a large number of calls are expected beforehand, said exchanging centers have a traffic measurement unit, a call regulation transmission unit, a memory unit, and a timer, said traffic measurement unit within said exchanging center measures communication traffic by receiving a call request signal transmitted from said base station and counting the number of received signals in a unit of given time period, and registers a transmission destination telephone number along with the number of call requests corresponding to said transmission destination telephone number within a given number and in descending order of the number of call requests, on a list of said

Art Unit: 4133

memory unit within the exchanging center, said timer clears the list of said memory unit within said switching center in given times, in the presence of a transmission destination telephone number, the number of call requests for which is not less than a given value on the list of said memory unit within said exchanging center, said call regulation transmission unit within said exchanging center confirms whether or not said transmission destination telephone number corresponds to said specific transmission Destination telephone number rather than a transmission destination telephone number having priority, by said specific transmission destination telephone number registered in said memory unit of said host device, if it corresponds to said specific transmission destination telephone number, the Hirada discloses (Abstract, Each mobile terminal comprises a memory which memorizes whether or not a last call end state is a squelch end and which memorizes, in case where the last call end state memorized in the memory is the squelch end, a random minimum value greater than that in case where the last call end state memorized in the memory is not the squelch end, a probability generating section, and a call setup request section responsive to a call setup request for detecting a call regulation value from a call regulation signal, supplying the random minimum value memorized in the memory to the probability generating section to make the probability generating section generate as a call setup request probability one of a plurality of random numbers within a range between the random minimum value and a random maximum value, and transmitting a call setup signal to a base station in case where the call setup request probability is greater than the call regulation value) and (Col. 2, lines 10-67 , Col. 3, line 40-65 and Col. 4, 20-

Art Unit: 4133

35, Mobile communication systems including a base station for transmitting regulation signal representative of regulation value and a plurality of mobile terminals responsive to the call regulation signal from base station; and memorizes random minimum value a random minimum value having greater than in case where the last call end state memorized in the memory is not squelch end; to make the probability generating section generate call request probability; setup signals received in every predetermined unit time interval as a traffic measurement exceeds a preselected value; Once the random minimum value $L(\%)$ 122 is determined, each of the first through the n -th mobile terminals 1-1 through 1- n activates the probability section 13 as a random number generators in each of the through the n -th mobile terminals). However, the Hirade does not explicitly disclose "call regulation transmission unit within said exchanging center notifies a base station of a corresponding transmission destination telephone number by affixing it, as a regulation transmission destination telephone number, to a signal between a base station and an exchanging center and between an exchanging center and an exchanging center, said call regulation transmission unit within said exchanging center notifies a base station of a specific pattern indicating regulation-free if the number of call requests for said regulation transmission destination telephone number which has been notified to a base station is less than a given value on the list of said memory unit of said exchanging center, said base stations comprising a traffic measurement unit and a call regulation transmission unit, wherein said traffic measurement unit within said base station measures communication traffic by receiving a call request signal transmitted from said mobile terminal and counting the number of

Art Unit: 4133

received signals in given times, said call regulation transmission unit within said base station transmits a call regulation signal to regulate a call if a measured value of communication traffic is not less than a given value, and transmits a call regulation signal by affixing it to a regulation transmission destination telephone number within a call regulation signal if received said regulation transmission destination telephone number from said exchanging center even if a measured value of communication traffic is less than a given value, and releases a call regulation by transmitting a call regulation signal carrying a specific pattern indicating regulation-free to said mobile terminal, if a measured value of communication traffic is less than a given value, and if received from said exchanging center a specific pattern indicating regulation-free of a regulation transmission destination telephone number, said mobile terminal comprising a call request unit, a memory unit, and a call request probability generation unit as a random number generator, wherein said memory unit of said mobile terminal stores a transmission destination telephone number having priority, said call request probability generation unit generates a call request probability that is a random number N of a minimum value 1% to a maximum value 100%, said call request unit acquires a transmission destination telephone number which has been requested by a subscriber, and receives a call regulation signal from said base station, and acquiring a call regulation value M1 for a transmission destination telephone number having priority, a call regulation value M2 for other than a transmission destination telephone number Having priority and a regulation transmission destination telephone number, and

Art Unit: 4133

a call regulation value M3 for a regulation transmission destination telephone number (M1<M2<M3), as well as a regulation transmission destination telephone number, and acquires said call request probability N by allowing said call request probability generation unit to operate, and reads said transmission destination telephone number having priority from said memory unit of said mobile terminal, thereby confirming whether or not said transmission destination telephone number resides in said transmission destination telephone number having priority, said call request unit compares said call request probability N and said call regulation value M1 if the transmission destination telephone number resides in said transmission destination telephone number having priority, and transmits a call request signal when said call request probability N is larger than said call regulation value M1, and discards a call request from a subscriber after outputting a call rejection message onto a display of said mobile terminal when it is smaller, conversely, if said transmission destination telephone number does not reside in said transmission destination telephone number having priority, said call request unit confirms whether it resides in said regulation transmission destination telephone number within said call regulation signal, and compares said call request probability N and said call regulation value M2 if it does not reside, and transmits a call request signal when said call request probability N is larger than said call regulation value M2, and discards a call request from a subscriber after outputting a call rejection message onto a display of said mobile terminal when it is smaller, and conversely, if said transmission destination telephone number resides in said regulation transmission destination telephone number, said call request unit compares said call

Art Unit: 4133

request probability N and said call regulation value $M3$, and transmits a call request signal when said call request probability N is larger than said call regulation value $M3$, and discards a call request from a subscriber after outputting a call rejection message onto a display of said mobile terminal when it is smaller”.

In an analogous art, Chuah discloses (Col. 7 lines 38-44, The base stations 6, as is known, provide wide-area wireless coverage and multiplex remote terminal traffic from their respective coverage area to their system mobile switching center, e.g., UMSC 16 in FIG. 1. The base stations also broadcast (down-link) packets that are destined for one or more of the remote terminals in its cell) and (Col 5, lines 10-18, In one aspect of the invention, RCDAP methods and apparatus are provided. In RCDAP, each priority class is advantageously assigned a different chip delay from among chip delay distributions prior to submitting an access request to the base-station. Preferably, those classes with a higher priority are given a smaller average random chip delay such that their access requests will have a higher probability of being captured compared to those submitted by users with a lower priority class) and (Col. 13, lines 20-29, In the access priority embodiment in FIG. 9, the remote terminal, in step 901, receives and stores (in its memory) the following access priority system parameters broadcast by the base station: M which is the number of logical access channels which exist between the remote terminal and the base station; probability $P_{sub.i}$ for each class i ; and $K_{sub.i}$ which is the maximum number of transmission attempts associated with class i , where $P_{sub.i} = 1$ and $P_{sub.i} < P_{sub.i+1}$, $K_{sub.0} = K_{sub.max}$ and

Art Unit: 4133

K.sub.i+1, <K.sub.i.) and (Col 7, lines 4-16, Accordingly, software instructions or code associated with implementing the methodologies of the present invention may be stored in associated memory and, when ready to be utilized, retrieved and executed by an appropriate CPU. Also, the term "remote terminal" refers to any device capable of communications with a base station. For example, a remote terminal may be mobile (e.g., wireless phone or portable personal computer with a wireless modem) or fixed (e.g., fixed personal computer with a wireless modem). Also, the terms "base station" and "node_b," are used interchangeably Herein), wherein a subscriber after outputting a call rejection message onto Mobile terminal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Hirade teaching in combination of Chuah provides access priority control in a media access control protocol of a Universal Mobile Telecommunications System. (See Col. 1 lines 22-24). Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR include: Applying a know technique to a known device ready for improvement to yield predictable results.

Regarding claim 5, the Hirade teaches call regulation value and random generator. However, the Hirade does not explicitly disclose "specific transmission destination telephone number for which a large number of calls are expected beforehand is a ticket reservation destination telephone number"

In an analogous art, Chuah discloses (Col.3 lines 51-53, Reservation-based protocols attempt to avoid and resolve collisions by dynamically reserving channel

Art Unit: 4133

bandwidth for users needing to send packets.) and (col. 16, lines 23-26, It may be desirable to allow for an optional channel holding feature whereby each queue can remain empty for a short while without the Access Point releasing the bandwidth reservation. This allows high priority users to remain in the base station's reserved bandwidth list for an allotted amount of time before it is released, encouraging low latency of real-time packets (i.e. little or no delay, for packets of time-sensitive data such as voice communications) by avoiding all the setup signaling messaging required for channel reservation), wherein a large bandwidth or time slot will be reserved for special event as ticket sale.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Hirade teaching in combination of Chuah provides access priority control in a media access control protocol of a Universal Mobile Telecommunications System. (See Col. 1 lines 22-24). Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR include: Applying a known technique to a known device ready for improvement to yield predictable results.

Regarding claim 6, the Hirade teaches call regulation value and random generator. "Wherein said host device further comprises a time management unit and a timer". However the Hirade does not explicitly disclose "at an approach of the time for which a large number of calls are expected beforehand, said time management unit notifies in advance a base station of a regulation transmission destination telephone number by affixing it to a signal between a base station and an exchanging center and

Art Unit: 4133

between an exchanging center and an exchanging center, irrespective of a measured value of communication traffic, and after notifying a regulation transmission telephone number, said time management unit allows said timer of said host device to operate, and after an elapse of a given time, releases a call regulation by notifying a base station of a specific pattern indicating regulation-free”.

In an analogous art, Dupont discloses (Col. 3, lines 51-61, Based on the access control parameters and its data message priority, MS access controller 212 determines whether to send an access message/request (state 330) or backoff (state 325), and BS/BSC access controller 222 determines whether to allocate communications resource(s) in response to such a request. After a time-out period and no response, MS 210 again retries access (state 335). Upon allocation, access controller 222 notifies both MS 210 and data receiver controller 224 of the sub channel allocation, and the data transmitter controller 214 and data receiver controller 224 commence transfer of the data (state 340) and (Col. 3, lines 12-16, the portion of the GSM system servicing voice/short messaging subscribers includes an MSC (mobile switching center) 125 connected to an HLR/AuC (home location register/authentication center) 130 and PSTN (public switched telephone network) 150.), wherein switching centers have traffic measurement and times to handle extra traffic.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Hirade teaching in combination of Dupont provides contention-based prioritization, an expedited access is achieved by higher

Art Unit: 4133

priority units/traffic, thus increasing their throughput. Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR include: Applying a known technique to a known device ready for improvement to yield predictable results.

Regarding claims 7 and 13 are rejected, has limitations similar to those treated in the above rejection claim 1, and are met by the references as discussed above.

Regarding claim 8," is rejected, has limitations similar to those treated in the above rejection claim 6, and are met by the references as discussed above

Regarding claim 9," the Hirade discloses call regulation in claim 1 ,however the Hirade does not explicitly disclose " further comprising a host device, wherein said host device is a device that recognizes and manages, if an earthquake or a large disaster occurs, as to in which base station area such a disaster has occurred and whether it has terminated, and that notifies a corresponding base station of disaster information about occurrence and termination of a disaster by a disaster information signal, said base station further comprising a disaster correspondence unit, wherein said disaster correspondence unit receives a disaster information signal from said host device, and if a disaster occurs, transmits a call regulation signal through said call regulation transmission unit irrespective of a measured value of communication traffic, and if a disaster has terminated, releases a call regulation by transmitting a call regulation signal carrying a specific pattern indicating regulation-free".

In an analogous art, Chuah discloses (Col. 15, lines 24-29, one possible implementations of access priority according to the invention is to reserve some logical

Art Unit: 4133

access channels such that only emergency users can access. In another scenario, a service provider can differentiate, according to the present invention, between different types of customers based on the service charges that they pay), wherein a nature disaster has occurred that warrants immediate transmission, a different access priority is assigned.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Hirade and Dupont's teaching in combination of Chuah provides access priority control in a communications system and, more particularly, to methods and apparatus for providing access priority control in a media access control protocol of a Universal Mobile Telecommunications System. (See Col. 1 lines 20-25, Field of the invention).

Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR include: Applying a known technique to a known device ready for improvement to yield predictable results.

Regarding claim 10, is rejected, has limitations similar to those treated in the above rejection claim 4, and are met by the references as discussed above.

Regarding claim 11, the Hirade teaches call regulation value and random generator. However, the Hirade does not explicitly disclose "specific transmission destination telephone number for which a large number of calls are expected beforehand is a ticket reservation destination telephone number".

In an analogous art, Chuah discloses (Col.3 lines 51-53, Reservation-based protocols attempt to avoid and resolve collisions by dynamically reserving channel

Art Unit: 4133

bandwidth for users needing to send packets.) and (col. 16, lines 23-26, It may be desirable to allow for an optional channel holding feature whereby each queue can remain empty for a short while without the Access Point releasing the bandwidth reservation. This allows high priority users to remain in the base station's reserved bandwidth list for an allotted amount of time before it is released, encouraging low latency of real-time packets (i.e. little or no delay, for packets of time-sensitive data such as voice communications) by avoiding all the setup signaling messaging required for channel reservation), wherein a large bandwidth or time slot will be reserved for special event as ticket sale.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Hirade teaching in combination of Chuah provides access priority control in a media access control protocol of a Universal Mobile Telecommunications System. (See Col. 1 lines 22-24). Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR include: Applying a know technique to a known device ready for improvement to yield predictable results.

Regarding claim 12, is rejected, has limitations similar to those treated in the above rejection claim 6, and are met by the references as discussed above.

Conclusion

10. The prior art s are made of record and not relied upon is considered pertinent to applicant's discloses.

Art Unit: 4133

- US Patent Application Number 2002/0142789 A1 to Kuhl et al discloses a similar invention as recited in claim 1.
- US Patent Number 5,734,698 to Kobayashi et al discloses a similar invention as recited in claim 4.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KUO WOO whose telephone number is (571)270-7266. The examiner can normally be reached on Monday through Friday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Abul Azad can be reached on 571-272-7599. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 4133

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KUO WOO/
Examiner, Art Unit 4133

/ABUL AZAD/
Supervisory Patent Examiner, Art Unit 4133